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DATE: Wednesday, September 21, 2005

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		<i>DB=PGPB,USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L6	(L1 or l2) and (rna i or rna interference)	1
<input type="checkbox"/>	L5	(l1 or l2) and antisense	12
<input type="checkbox"/>	L4	(l1 or l2) and origin of assembly	0
<input type="checkbox"/>	L3	(L1 or l2) and silenc\$	2
<input type="checkbox"/>	L2	satellite tobacco necrosis virus	33
<input type="checkbox"/>	L1	satellite tobacco mosaic virus	12

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STN AnaVist, now available
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FILE 'HOME' ENTERED AT 11:15:06 ON 21 SEP 2005

=> file agricola caplus biosis

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FULL ESTIMATED COST	0.21	0.21

FILE 'AGRICOLA' ENTERED AT 11:15:19 ON 21 SEP 2005

FILE 'CAPLUS' ENTERED AT 11:15:19 ON 21 SEP 2005

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FILE 'BIOSIS' ENTERED AT 11:15:19 ON 21 SEP 2005

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=> s satellite tobacco mosaic virus or stmv

L1 156 SATELLITE TOBACCO MOSAIC VIRUS OR STMV

=> s l1 and (oas or origin of assembly

UNMATCHED LEFT PARENTHESIS 'AND (OAS'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s l1 and (oas or origin of assembly)

L2 0 L1 AND (OAS OR ORIGIN OF ASSEMBLY)

=> s (tobacco mosaic virus or tmv) and (oas or origin of assembly)

L3 47 (TOBACCO MOSAIC VIRUS OR TMV) AND (OAS OR ORIGIN OF ASSEMBLY)

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 26 DUP REM L3 (21 DUPLICATES REMOVED)

=> d 1-5 ti

L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

TI Role of viral movement and coat proteins and RNA in phloem-dependent movement and phloem unloading of tobamoviruses

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

TI Identification of gene function in plants by gene silencing and the use of viral satellites to deliver silencing RNA

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

TI Replication-incompetent virus-like particles for targetted delivery of nucleic acids or proteins

L4 ANSWER 4 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 2

TI A conserved, precise RNA encapsidation pattern in tobamovirus particles.

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

TI Packaging of RNA into viral particles

=> d 5 ab

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

AB An in vivo system for expression and packaging of RNA into pseudovirus particles is described. The invention is based on the discovery that genes for plant viral coat proteins (CPs) may be efficiently expressed in E. coli, and that these coat proteins will assemble in vivo and package chimeric RNA, containing an origin-of-assembly (OAS) sequence, to form mature viral particles containing a foreign RNA. The present invention thus provides for packaging of RNA into a RNase-resistant form that is easily purified and stored, and which overcomes the prior art problems associated with the degradation of RNA by RNases. Significantly, the method of the invention is RNA sequence- and length-independent. The components of the invention include a source of viral coat proteins, and an expression cassette directing transcription of DNA encoding an OAS-containing transcript. The CPs and OAS are from a plant virus having a rod-shaped helical particle and a single-stranded RNA genome, most preferably tobacco mosaic virus.

=> d 5 pi

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9410329	A1	19940511	WO 1993-US10396	19931028
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

US 5443969	A	19950822	US 1992-971101	19921029
AU 9454554	A1	19940524	AU 1994-54554	19931028
AU 693770	B2	19980709		
EP 683821	A1	19951129	EP 1993-925119	19931028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08505523	T2	19960618	JP 1993-511342	19931028

=> d 4 ab

- L4 ANSWER 4 OF 26 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 2
- AB The bidirectional RNA encapsidation pathway in nine sequenced Type 1 Tobamovirus genomes will result in RNA-coat protein assembly, up to and including the first transcribed G, adjacent to the 5'-cap structure (m7 Gppp). This precision is highly conserved, despite wide interstrain variations in the absolute position of the phase-determining core of the origin-of-assembly sequence (Gxx)n and in overall genome length (6311-6507 nts). A Type 2 Tobamovirus genome did not comply with this pattern. All genomes had a statistically significant bias for G at every third (or 3n) position, resulting in a preponderance of GNN codons and hence a high Val, Ala, Gly, Asp, Glu content, at least in the large (126/183 kDa) and amino-coterminal replicase protein genes. Contrary to predictions from the X-ray fibre diffraction structure of tobacco mosaic virus (TMV, U1 strain), only one (pepper mild mottle virus) of the nine Type 1 Tobamoviruses positioned the preferred G-repeat in the most favourable (5') position of the trinucleotide binding site on each coat protein (CP) subunit. In all but one of the eight remaining Type 1 Tobamovirus genomes, G would predominate in the CP 3'-site. The significance of these observations for TMV particle assembly, disassembly and host cell interactions are discussed.

=> s l1 and coat protien

L5 0 L1 AND COAT PROTIEN

=> s l1 and coat protein

L6 38 L1 AND COAT PROTEIN

=> dup rem l6

PROCESSING COMPLETED FOR L6

L7 18 DUP REM L6 (20 DUPLICATES REMOVED)

=> d 1-10 ti

- L7 ANSWER 1 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 1
- TI Molecular structures of viruses from Raman optical activity.
- L7 ANSWER 2 OF 18 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
- TI Stability of **Satellite Tobacco Mosaic Virus** RNA cores and its implications for infectivity and macromolecular assembly.
- L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
- TI Biophysical studies on the RNA cores of **satellite tobacco mosaic virus**
- L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
- TI Heterogeneity in the 3'-terminal untranslated region of tobacco mild green mosaic tobamoviruses from *Nicotiana glauca* resulting in variants with three or six pseudoknots
- L7 ANSWER 5 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States

of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 4

TI Naturally occurring variants of **satellite tobacco mosaic virus**.

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

TI Refined structure of **satellite tobacco mosaic virus** at 1.8 Å resolution

L7 ANSWER 7 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 6

TI Replication of wild-type and mutant clones of **satellite tobacco mosaic virus** in *Nicotiana benthamiana* protoplasts.

L7 ANSWER 8 OF 18 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Efficient replication of mutants of **satellite tobacco mosaic virus** in *Nicotiana* protoplasts.

L7 ANSWER 9 OF 18 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI The structure of **satellite panicum mosaic virus** at 1.9 Å resolution.

L7 ANSWER 10 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 7

TI Structural comparison of the plant **satellite viruses**.

=> d 2 ab

L7 ANSWER 2 OF 18 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

=> d 2 so

L7 ANSWER 2 OF 18 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

SO Biophysical Journal, (January, 2002) Vol. 82, No. 1 Part 2, pp. 461a.
print.
Meeting Info.: 46th Annual Meeting of the Biophysical Society. San Francisco, California, USA. February 23-27, 2002.
CODEN: BIOJAU. ISSN: 0006-3495.

=> d 3 ab

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

AB **Satellite tobacco mosaic virus (STMV)** was probed using a variety of proteases. Consequences of the degradation were analyzed using gel electrophoresis, quasi-elastic light scattering (QELS), and atomic force microscopy (AFM). Proteolysis rates of 30 min for complete degradation of the protein capsid, up to many hours, were investigated. With each protease, degradation of virions 17 nm in diameter was shown by QELS to result in particles of 10 nm diameter, which is that of the RNA core observed in the virion by x-ray diffraction anal. This was verified by direct visualization with atomic force microscopy. Using QELS, it was further shown that freshly prepared RNA cores remain as individual, stable, 10-nm condensed particles for 12 to 24 h. Clusters of particles then formed, followed by very large aggregates of 500 to 1000 nm diameter AFM showed that the aggregates were composed of groups of the condensed RNA cores and were not due to unfolding of the nucleic acid. No unfolding of the core particles into extended conformation was seen by AFM until the samples were heated well beyond 90°. Mass spectrometry of RNA core particles revealed the presence of a major polypeptide whose amino acid sequence corresponded to residues 2 through 25 of the coat protein. Amino acids 13 through 25 were previously observed to be in direct contact with the RNA and are presumably protected from protease

digestion. Low resolution difference Fourier analyses indicated the courses of the remainders of the amino terminal strands (amino acids 2-12) in intact virions. Any individual strand appears to have several choices of path, which accounts for the observed disorder at high resolution. These positively charged strands, serving as virtual polyamines, engage the helical segments of RNA. The intimate association of amino acid residues 2 through 25 with RNA likely contributes to the stability of the condensed conformation of the nucleic acid cores.

=> d 10 ab

- L7 ANSWER 10 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 7
- AB Detailed structures are now available for three plant satellite viruses, satellite tobacco necrosis virus (STNV), **satellite tobacco mosaic virus (STMV)**, and satellite panicum mosaic virus (SPMV). It is, therefore, possible to compare the tertiary structure of viral protein subunits, their quaternary interactions, and the interactions of protein subunits with the RNA genome. This analysis indicates that, in spite of common function and preservation of a "jelly-roll" motif in the protein monomer, the three viruses are remarkably different. The differences include the arrangement of secondary structural elements, interactions of adjacent subunits, and the disposition of subunits relative to icosahedral symmetry axes. In each of the three viruses, however, the narrow end of the jelly roll forms fivefold contacts. The fivefold protein interactions are organized about a Ca²⁺ ion for STNV, an anion for **STMV**, and, apparently, neither of these for SPMV. Low-resolution neutron diffraction studies using H₂O/D₂O solvent contrast variation revealed the general location of the RNA genome within the STNV. In the case of SPMV, regions of electron density on the interior of the capsid could be assigned to RNA, although it was not possible to model the nucleic acid. Only for **STMV** was nucleic acid visible in electron density maps, and this was manifested as double-helical RNA segments associated with each **coat protein dimer**. The observations presented here provide no support for any common evolutionary relationship.

=> d 11-18 ti

- L7 ANSWER 11 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 8
- TI Characterization of deletion and frameshift mutants of **satellite tobacco mosaic virus**.
- L7 ANSWER 12 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 9
- TI Similarities between the secondary structure of **satellite tobacco mosaic virus** and tobamovirus RNAs.
- L7 ANSWER 13 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 10
- TI Three-dimensional structure of **satellite tobacco mosaic virus** at 2.9 angstroms resolution.
- L7 ANSWER 14 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 11
- TI Double-helical RNA in **satellite tobacco mosaic**

virus.

- L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN
TI Recombinant expression system based on **satellite tobacco mosaic virus**
- L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 12
TI The complete nucleotide sequence of the genomic RNA of the tobamovirus tobacco mild green mosaic virus
- L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN
TI Nucleotide sequence and translation of **satellite tobacco mosaic virus** RNA
- L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13
TI Analysis of the genome of satellite panicum mosaic virus

=> d 12 zb

'ZB' IS NOT A VALID FORMAT

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- L7 ANSWER 12 OF 18 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 9
- AB The secondary structure of **satellite tobacco mosaic virus (STMV)** RNA was predicted using computer simulations of RNA folding. The analogies of structural elements in the 3' end untranslated regions (3'-UTR) of tobamoviral RNAs were analysed. In addition to the tRNA-like structure and pseudoknot stalk, which are found in all known RNAs of tobamoviruses and **STMV**, another region of stable consecutive pseudoknots was predicted in the 3'-UTR of **STMV** RNA. A similar pattern of repeated structural units, containing pseudoknot stalks and parts of the tRNA-like structure, was also found in odontoglossum ringspot virus (ORSV) RNA 3'-UTR. The predictions on the structure are supported by sequence comparisons which point to an important functional role of 3' terminal pseudoknots in **STMV** RNA as well as in other tobamoviral RNAs. The possible participation of pseudoknotted structures in the interactions with coat protein in **STMV** is discussed.

=> d 15 ab

- L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN
- AB A cDNA encoding a full-length copy of the RNA genome of **satellite tobacco mosaic virus** is cloned and characterized for use as a transformation vector for plants. The virus is systemic and needs a helper virus for replication and so can be used to introduce foreign DNA into a plant without being pathogenic. The genome was cloned as a cDNA by standard methods using defined oligonucleotide primers. The RNA was shown by in vitro translation to encode two peptides of mol. weight 6,800 and 17,500. A series of plasmid derivs. containing modified cDNAs were constructed and transcripts from these used in infectivity studies on tobacco plants with tobacco mosaic virus isolates as helpers. The transcripts tested produced infected plants and virions were recovered from these plants. Antisense transcripts were not infective.

=> d 15 so

- L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN
SO PCT Int. Appl., 48 pp.

=> d 15 pi

L7	ANSWER 15 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9012107	A1	19901018	WO 1990-US1738	19900402
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				

=> d 17 ab

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN

AB **Satellite tobacco mosaic virus (STMV)** is a plant virus with a 17-nm icosahedral particle encapsidating a 0.3 + 106 Mr ssRNA genome that depends on tobamoviruses for its replication. The complete nucleotide sequence of STMV RNA deduced in the expts. described here was 1059 nucleotides in length. The efficiency of labeling viral RNA with [γ -32P]ATP using T4 polynucleotide kinase was not affected by treatment with tobacco acid pyrophosphatase and/or bacterial alkaline phosphatase, indicating that the majority of the 5' termini of encapsidated STMV RNAs were phosphorylated. The 240 3'-terminal nucleotides of STMV RNA and either tobacco mosaic virus (TMV) U1 RNA or TMV U2/U5 RNA had greater than 65% overall sequence similarity, with 2 nearly identical regions of 40 and 50 bases, resp. There were no other regions of sequence homol. with TMV RNA. The 19 5'-terminal nucleotides of STMV RNA had greater than 65% sequence similarity with the 16 5'-terminal nucleotides of brome mosaic virus RNA 3 and 50% sequence similarity with the 12 5'-terminal nucleotides of the Q strain of cucumber mosaic virus RNA 3. The first open reading frame (ORF) beginning at base 53 encoded a 6800 Mr protein that corresponded in size to a major in vitro translation product directed by STMV RNA. A second ORF, beginning at nucleotide 163, had the capacity to code for a protein that corresponded in size (17,500 Mr) to the other major in vitro translation product. The first 12 codons of this ORF corresponded to the sequence of the N-terminal amino acids of the capsid protein. Western blot anal. of the in vitro translation products revealed that the 17,500 Mr protein had the same electrophoretic mobility as the authentic capsid protein; it was also antigenically related to the capsid protein, but the 6800 Mr protein was not. Time course anal. of in vitro translation demonstrated that the 6800 Mr protein was synthesized at the same time as the capsid protein and did not arise by the proteolytic cleavage of a larger precursor polypeptide. These results suggest that the genome of STMV functioned as a polycistronic mRNA. It has not been determined if the 6800 Mr protein is synthesized in vivo. STMV RNA had untranslated regions of 52 and 418 nucleotides at its 5' and 3' termini, resp. Nonphosphorylated 5' termini, the degree of similarity to the 3' terminus of 2 of its helper viruses, the genome organization, and the ability to function as a polycistronic mRNA are unique features for the genome of this satellite virus.

=> d 17 so

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN

SO Virology (1989), 170(1), 139-46

CODEN: VIRLAX; ISSN: 0042-6822

=> s satellite tobacco necrosis virus

L8 316 SATELLITE TOBACCO NECROSIS VIRUS

=> s 15 and vector

L9 0 L5 AND VECTOR

=> s 18 and vector

L10 14 L8 AND VECTOR

=> dup rem l10

PROCESSING COMPLETED FOR L10

L11 9 DUP REM L10 (5 DUPLICATES REMOVED)

=> d 1-9 ti

L11 ANSWER 1 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Geminate structures of African cassava mosaic virus.

L11 ANSWER 2 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI 1966-1996: Thirty years of virology.

L11 ANSWER 3 OF 9 AGRICOLA Compiled and distributed by the National
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(2005) on STN DUPLICATE 1
TI Expression of tobacco necrosis virus open reading frames 1 and 2 is
sufficient for the replication of satellite necrosis virus.

L11 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI Evidence that the requirements for ATP and wheat germ initiation factors
4A and 4F are affected by a region of **satellite tobacco
necrosis virus** RNA that is 3' to the ribosomal binding
site

L11 ANSWER 5 OF 9 AGRICOLA Compiled and distributed by the National
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(2005) on STN DUPLICATE 3
TI **Satellite tobacco necrosis virus:**
a new **vector** in plant genetic engineering.

L11 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Synthesis of **satellite tobacco necrosis
virus** (STNV) RNA-like transcripts in Escherichia coli

L11 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
TI The determination of the heavy-atom substitution sites in the
satellite tobacco necrosis virus

L11 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Progress toward a low resolution structure of the **satellite
tobacco necrosis virus**

L11 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Amino acid composition, antigenicity, and other characteristics of the
satellite viruses of tobacco necrosis virus

=> s l1 and (antisense or silenc?)

L12 4 L1 AND (ANTISENSE OR SILENC?)

=> dup rem l12

PROCESSING COMPLETED FOR L12

L13 2 DUP REM L12 (2 DUPLICATES REMOVED)

=> d 1-2 ti

L13 ANSWER 1 OF 2 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 1
TI SVISS--a novel transient gene **silencing** system for gene function
discovery and validation in tobacco plants.

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Recombinant expression system based on **satellite tobacco**

mosaic virus

=> d 2 pi

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9012107 A1 19901018 WO 1990-US1738 19900402
W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE

=> s l8 and (antisense or silenc?)

L14 1 L8 AND (ANTISENSE OR SILENC?)

=> d ti

L14 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Different 5' leader sequences modulate beta-glucuronidase accumulation
levels in transgenic Nicotiana tabacum plants.

=> d ab

L14 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB Three random synthetic leaders and three naturally-occurring, leaders, the
tobacco mosaic virus (TMV) coat protein, the satellite
tobacco necrosis virus (STNV) and the plant
chlorophyll a/b-binding protein (Cab22L), were shown to modulate the
beta-glucuronidase reporter protein accumulation levels in transient
expression experiments. The same chimeric constructs also confer
differential distribution patterns of reporter protein accumulation in
stablytransformed tobacco calli or regenerated transgenic plants. When
the highest expression levels with a given leader are compared, the
31-nucleotide random leader stimulates translation 20- and 100-fold
relative to the 9- and 4-nucleotide synthetic leaders respectively.
However, this 31-nucleotide random leader is approx. 2 to 3-fold weaker
than the 30-nucleotide STNV leader and even 5-fold weaker than both the
79-nucleotide TMV leader and the 66-nucleotide Cab22L leader. These
results confirm the findings in transient expression experiments and
stress the importance of the 5'-untranslated region for the production of
heterologous proteins in transgenic plants.

=> d so

L14 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
SO Euphytica, (1995) Vol. 85, No. 1-3, pp. 209-216.
CODEN: EUPHAA. ISSN: 0014-2336.

=> s ((meulewaeter f?) or (meulewaeter, f?))/au

L15 41 ((MEULEWAETER F?) OR (MEULEWAETER, F?))/AU

=> s l15 and (satellite tobacco mosaic virus or satellite tobacco necrosis virus)

L16 18 L15 AND (SATELLITE TOBACCO MOSAIC VIRUS OR SATELLITE TOBACCO
NECROSIS VIRUS)

=> dup rem l16

PROCESSING COMPLETED FOR L16

L17 9 DUP REM L16 (9 DUPLICATES REMOVED)

=> d 1-9 ti

L17 ANSWER 1 OF 9 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 1

TI SVISS--a novel transient gene silencing system for gene function discovery and validation in tobacco plants.

L17 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

TI The 5' and 3' extremities of the **satellite tobacco necrosis virus** translational enhancer domain contribute differentially to stimulation of translation

L17 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

TI Functionality of the STNV translational enhancer domain correlates with affinity for two wheat germ factors

L17 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

TI Features of the autonomous function of the translational enhancer domain of **satellite tobacco necrosis virus**

L17 ANSWER 5 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 5

TI 5'- and 3'-sequences of **satellite tobacco necrosis virus** RNA promoting translation in tobacco.

L17 ANSWER 6 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 6

TI Expression of tobacco necrosis virus open reading frames 1 and 2 is sufficient for the replication of **satellite necrosis virus**.

L17 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7

TI The 3' untranslated region of **satellite tobacco necrosis virus** RNA stimulates translation in vitro

L17 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

TI Specificity of **satellite** activation by tobacco necrosis virus correlates with nucleic acid hybridization pattern between helper virus isolates

L17 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI GENOME STRUCTURE OF TOBACCO NECROSIS VIRUS STRAIN A.

=> s ((cornelissen m?) or (cornelissen, m?))/au

L18 313 ((CORNELISSEN M?) OR (CORNELISSEN, M?))/AU

=> s l18 and (satellite tobacco mosaic virus or satellite tobacco necrosis virus)

L19 17 L18 AND (SATELLITE TOBACCO MOSAIC VIRUS OR SATELLITE TOBACCO NECROSIS VIRUS)

=> dup rem l19

PROCESSING COMPLETED FOR L19

L20 7 DUP REM L19 (10 DUPLICATES REMOVED)

=> d 1-7 ti

L20 ANSWER 1 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 1

TI SVISS--a novel transient gene silencing system for gene function discovery and validation in tobacco plants.

L20 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

TI The 5' and 3' extremities of the **satellite tobacco necrosis virus** translational enhancer domain contribute differentially to stimulation of translation

L20 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

TI Functionality of the STNV translational enhancer domain correlates with

affinity for two wheat germ factors

L20 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
 TI Features of the autonomous function of the translational enhancer domain of **satellite tobacco necrosis virus**

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 TI 5'- and 3'-sequences of **satellite tobacco necrosis virus** RNA promoting translation in tobacco.

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 TI Expression of tobacco necrosis virus open reading frames 1 and 2 is sufficient for the replication of **satellite necrosis virus**.

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 TI The 3' untranslated region of **satellite tobacco necrosis virus** RNA stimulates translation in vitro

=> s ((jACOBS j?) or (jACOBS, j?))/au
 L21 3286 ((JACOBS J?) OR (JACOBS, J?))/AU

=> s l21 and (satellite tobacco mosaic virus or satellite tobacco necrosis virus)
 L22 0 L21 AND (SATELLITE TOBACCO MOSAIC VIRUS OR SATELLITE TOBACCO NECROSIS VIRUS)

=> s ((van eldik g?) or (van eldik, g?))/auy
 'AUY' IS NOT A VALID FIELD CODE
 'AUY' IS NOT A VALID FIELD CODE
 'AUY' IS NOT A VALID FIELD CODE
 L23 0 ((VAN ELDIK G?) OR (VAN ELDIK, G?))/AUY

=> s ((van eldik g?) or (van eldik, g?))/au
 L24 37 ((VAN ELDIK G?) OR (VAN ELDIK, G?))/AU

=> s l24 and (satellite tobacco mosaic virus or satellite tobacco necrosis virus)
 L25 0 L24 AND (SATELLITE TOBACCO MOSAIC VIRUS OR SATELLITE TOBACCO NECROSIS VIRUS)

=> s ((metzlaff m?) or (metzlaff, m?))/au
 L26 100 ((METZLAFF M?) OR (METZLAFF, M?))/AU

=> s l26 and (satellite tobacco mosaic virus or satellite tobacco necrosis virus)
 L27 3 L26 AND (SATELLITE TOBACCO MOSAIC VIRUS OR SATELLITE TOBACCO NECROSIS VIRUS)

=> dup rem l27
 PROCESSING COMPLETED FOR L27
 L28 1 DUP REM L27 (2 DUPLICATES REMOVED)

=> d ti

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 TI SVISS--a novel transient gene silencing system for gene function discovery and validation in tobacco plants.